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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/573,802

03/28/2006

Tetsuro Mizushima

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OLIFF & BERRIDGE, PLC

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EXAMINER

AMARI, ALESSANDRO V

ART UNIT

PAPER NUMBER

2872

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/573,802	<b>Applicant(s)</b> MIZUSHIMA ET AL.	
	<b>Examiner</b> ALESSANDRO AMARI	<b>Art Unit</b> 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8, 11 and 12 is/are allowed.
- 6) ☒ Claim(s) 9 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/28/2006</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Specification***

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Holographic Recording and Reproduction Apparatus and Method With Temperature Adjustment Device for Semiconductor Laser.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curtis et al US 6,825,960 in view of Takasago et al US 4,853,915.

In regard to claim 9, Curtis et al teaches (see Fig. 1) a holographic recording medium on which information is recorded as a hologram in a data area as described in column 2, lines 18-27, column 3, lines 29-67 and column 4, lines 46-67.

However, in regard to claim 9, Curtis et al does not teach that the wavelength information of a recording laser beam used for recording of the information is recorded as a wavelength address hologram.

In regard to claim 9, Takasago et al teaches that the wavelength information of a recording laser beam used for recording of the information is recorded as described in column 6, lines 34-43.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the wavelength information of a recording laser beam be recorded as taught by Takasago et al as a wavelength address hologram for the apparatus of Curtis et al in order to provide for more accurate control of the recording and so to be able to access the data with a reduced error rate.

Regarding claim 10, Takasago et al teaches the wavelength address hologram is recorded in a lead-in area that is to be accessed prior to an access to the data area when the information is reproduced as shown in Figures 2 and 3 and as described in column 6, lines 34-43.

***Allowable Subject Matter***

4. Claims 1-8, 11 and 12 are allowed.
5. Claim 1 is allowable for at least the reason, "a temperature adjustment device for controlling a temperature of the semiconductor laser; and a wavelength control device for controlling a wavelength of the reproducing laser beam to be approximately coincident with a wavelength of the recording laser beam by adjusting a temperature of the semiconductor laser via the temperature adjustment device based on the wavelength information reproduced from the wavelength address hologram by the reproducing laser beam, prior to reproduction of the information recorded on the

holographic recording medium with the reproducing laser beam” as set forth in the claimed combination. Claims 2, 3 and 11 are allowable due to their dependence on claim 1.

Claim 4 is allowable for at least the reason, “a temperature adjustment device capable of adjusting a temperature of the semiconductor laser; a wavelength information recording device for recording wavelength information of the recording laser beam as a wavelength address hologram on the holographic recording medium when the information is recorded on the holographic recording medium with the recording laser beam; and a wavelength control device for controlling a wavelength of the reproducing laser beam to be approximately coincident with a wavelength of the recording laser beam by adjusting the temperature of the semiconductor laser via the temperature adjustment device based on a signal beam diffracted from the wavelength address hologram by the reproducing laser beam, when the information recorded on the holographic recording medium is reproduced with the reproducing laser beam” as set forth in the claimed combination. Claims 5, 6 and 12 are allowable due to their dependence on claim 4.

Claim 7 is allowable for at least the reason, “a process of recording wavelength information of the recording laser beam as a wavelength address hologram on the holographic recording medium when the information is recorded on the holographic recording medium with the recording laser beam; a process of irradiating the wavelength address hologram with the reproducing laser beam to reproduce the wavelength information from a diffracted signal beam, prior to reproduction of the

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information recorded on the holographic recording medium; and a process of adjusting a temperature of a semiconductor laser emitting the reproducing laser beam to make a wavelength of the reproducing laser beam approximately coincident with a wavelength in accordance with the wavelength information based on the reproduced wavelength information” as set forth in the claimed combination. Claim 8 is allowable due to its dependence on claim 7.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALESSANDRO AMARI whose telephone number is (571)272-2306. The examiner can normally be reached on Monday-Friday 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Stephone B. Allen can be reached on (571) 272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ava  
05 May 2008

/Alessandro Amari/  
Primary Examiner, Art Unit 2872